

## LISTING OF THE CLAIMS

What is claimed is:

1. (currently amended) A direct heating pipe tube which directly heats a fluid during the passage of the fluid, wherein in a desired portion of the pipe tube to be heated, a second heated pipe tube which is connected to a first heated pipe tube is provided outside the first heated pipe tube.
2. (currently amended) The direct heating pipe tube according to claim 1, wherein the second heated pipe tube is provided along a full length of the desired portion of the direct heating pipe tube to be heated.
3. (currently amended) The direct heating pipe tube according to claim 1, wherein the second heated pipe tube is provided in both end portions of the desired portion of the direct heating pipe tube to be heated.
4. (currently amended) The direct heating pipe tube according to claim 1, wherein the second heated pipe tube is provided in one end portion of the desired portion of the direct heating pipe tube to be heated.
5. (currently amended) The direct heating pipe tube according to claim 1, wherein an electrode portion is connected to the second heated pipe tube.
6. (currently amended) The direct heating pipe tube according to claim 5, wherein an electrode portion is connected directly to the second heated pipe tube.
7. (currently amended) The direct heating pipe tube according to claim 1, characterized in that ~~wherein~~ a change in gradient is provided in a wall thickness of the first heated pipe tube and/or the second heated pipe tube.

8. (currently amended) The direct heating pipe tube according to claim 1, wherein the direct heating pipe tube is a column or a heat pipe tube.

9. (currently amended) A method of heating a fluid passing through a pipe tube, wherein in a desired portion of the pipe tube to be heated, by use of a direct heating pipe tube which is constructed in such a manner that a second heated pipe tube connected to a first heated pipe tube is provided outside the first heated pipe tube, a fluid passing through the pipe tube is heated by connecting an electrode portion to the second heated pipe tube and heating the first heated pipe tube.

10. (currently amended) The direct heating pipe tube according to claim 5, wherein a change in gradient is provided in a wall thickness of the first heated pipe tube and/or the second heated pipe tube.

11. (currently amended) The direct heating pipe tube according to claim 10, wherein the direct heating pipe tube is a column or a heat pipe tube.

12. (currently amended) The direct heating pipe tube according to claim 2, wherein the direct heating pipe tube is a column or a heat pipe tube.

13. (currently amended) The direct heating pipe tube according to claim 3, wherein the direct heating pipe tube is a column or a heat pipe tube.

14. (currently amended) The direct heating pipe tube according to ~~claims-claim~~ 4, wherein the direct heating pipe tube is a column or a heat pipe tube.

15. (currently amended) The direct heating pipe tube according to claims 5, wherein the direct heating pipe tube is a column or a heat pipe tube.

16. (currently amended) The direct heating pipe tube according to claims 6, wherein the direct heating pipe tube is a column or a heat pipe tube.

17. (currently amended) The direct heating pipe tube according to claims 7, wherein the direct heating pipe tube is a column or a heat pipe tube.

18. (currently amended) The direct heating pipe tube according to claims 8, wherein the direct heating pipe tube is a column or a heat pipe tube.

19. (currently amended) The direct heating pipe tube according to claim 4, wherein an electrode portion is connected to the second heated pipe tube.

20. (currently amended) The direct heating pipe tube according to claims 19, wherein the direct heating pipe tube is a column or a heat pipe tube.